

## **ABSTRACT**

### **FABRICATION PROCESS FOR PREPARING RECORDING HEAD SLIDERS MADE FROM SILICON SUBSTRATES WITH SiO<sub>2</sub> OVERCOATS**

A method for fabricating recording head sliders made from silicon substrates, is

5 described. A Silicon wafer with a SiO<sub>2</sub> overcoat is provided, and a layer of material which is resistant to Deep Reactive Ion Etching (DRIE) is deposited on the SiO<sub>2</sub> overcoat. A patterned layer of material which is resistant to Reactive Ion Etching (RIE) is deposited on the layer of DRIE-resistant material to form a primary mask. RIE is used through the primary mask to pattern the SiO<sub>2</sub> overcoat layer and the layer of DRIE-

10 resistant material. The primary mask is then removed to expose the layer of DRIE-resistant material which has now been patterned to form a secondary mask. DRIE is then used through the secondary mask to cut the Si wafer into pieces. Finally, the secondary mask is removed.